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ABSTRACT

This paper is a guide for determining how to measure the goals of citizen education programs. It presents a procedure by which educators or evaluators can identify program goals and determine what types of measures can best assess achievement of the goals. It does not suggest specific tests or measurement instruments: those can be developed or selected on the basis of the procedure outlined in this paper. The opening sections discuss four categories of possible program goals: knowledge, skills, attitudes, and behaviors. Each type of goal must be measured in a different way, based on clarification of the goal's content and determination of the appropriate measurement format. For example, skill goals should be measured with performance tests whereas behavioral goals should be assessed by observational procedures. A lengthy appendix presents 16 sample outlines for reviewing measurement criteria for various goals in each of the four areas of knowledge, skills, attitudes, and behaviors. Each sample outline states a goal, clarifies its content, relates it to citizenship, and explains its implications for the type of measurement best suited to it. (AV)

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OBTAINING MEASURES OF CITIZEN EDUCATION GOALS

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PREFACE

This paper was written during the first part of the Research for Better Schools's (RBS) school improvement effort in the area of citizen education which is being carried out in junior high and middle schools. The effort involves a process of goal setting and related measurement of student characteristics, in preparation for program assessment and development. In this effort, RBS has encouraged the school people to construct their own locally-valued goals and to determine the substance of the related measures. RBS' role has been to help the school people carry out these tasks so that the outcomes will provide a firm basis for the ensuing work on the educational program. In keeping with this role orientation, the present paper does not promote the choice of particular goals or measures; instead it provides general questions and considerations concerning measures in the area of citizen education.

Although the paper was developed as part of the RBS work, it was written with more general use in mind. It could be used for obtaining measures at most grade levels and with adults, though some suggestions do require that the citizen education target group be literate. The paper was designed as a guide for any person who takes on the responsibility of obtaining measures for citizen education goals, as described in the "Purpose and Intended Audience" section of the Introduction to the paper.

The present version of the paper is a revision of a paper entitled Conceptualization and Specification of Measures of Student Behavior Related to Citizen Education Goals, written by the present author with the

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assistance of John J. Bowers. Insights for the revisions came from helpful reviews by John Bowers, Donald Coan, Florence Davis, James DiCostanzo, Carl Guerriero, Russell Hill, Richard Hulsart, Louis Maguire, James Oswald, Barbara Presseisen, and Sanford Temkin. Also influential in the revision was the author's firsthand experience in the use of related procedures in one school and his coordination of use in three other schools.

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OBTAINING MEASURES OF CITIZEN EDUCATION GOALS

Introduction

The introduction makes explicit the assumptions underlying the guidance presented in this paper. In particular, the intended use of the paper, the required expertise of users, the envisioned use of citizen education goal measures, and the availability of appropriate measures are discussed, in order to alert the reader to the author's orientation.

Purpose and Intended Audience

The purpose of this paper is to present a procedure for obtaining measures of citizen education goals in a systematic and defensible manner.[1] Using the procedure does not require a high degree of measurement expertise; however, experience in and sympathy for the careful use of measures in educational settings are needed. Its use does require considerable interchange with the person or persons who are responsible for identifying and educating for the particular citizen education goal in question; hereafter such persons will be referred to as goal experts.[2] This paper is primarily a guide to obtaining the necessary clarifications of the goal from the goal expert(s). The outcome of use of the guide is a set of explicit implications for measure specifications, not the

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[1] Although no definition of citizen education is presented in this paper, the goals referred to in the Appendix do indicate the nature and breadth of the domain.

[2] Goal experts in citizen education should be chosen for their reputation for knowledge in the specific goal area; there probably will be different goal experts for the different goals.

measure itself. The measure itself will remain to be developed or chosen, and would be obtained in accordance with both the statement of implications for measure specifications and specific content supplied by the goal expert(s). An overview of use of this paper is in Table 1.

Perspective on the Need for Measures: The Indicator Approach

The primary need for measures of goals is to allow for objective determination of how well the goals are being achieved. However, there are at least two ways to interpret this need, as is revealed in the following discussion.

As with most major education goals, the goals of citizen education are phrased in general terms. Measures, on the other hand, refer to specific behaviors. Thus, in obtaining measures of citizen education goals, there is a problem of relating the specific behavior evidenced in the measure to the general characteristics referred to in the goal.

One solution to the problem is to have content experts analyze the general goal into specific objectives, with the final aim of generating a set of behavioral objectives that are essentially synonymous with particular test items. All the measures so generated are then the measures associated with the original general goal. The conclusion concerning achievement of the goal is based upon a summary of results from the many associated measures. This solution is here called the behavioral objectives approach.

A contrast to the behavioral objectives approach is the indicators approach. This approach involves only enough clarification to identify the single or few behaviors most readily associated with the goal.

TABLE 1

Outline of Tasks Involved in Obtaining Measures of Citizen Education Goals and Related Guidance in This Paper

Tasks of Obtaining Measures	Guidance in the Paper
1. Adopting a perspective on the tasks of obtaining measures	"Perspectives on the Need for Measures . . ." (pp. 2-5) "Finding . . . Indicators in the Literature" (pp. 5-6)
2. For each goal, determining the goal's general category	"General Goal Categories" (pp. 6-8)
3. For each goal, developing goal-clarifying questions within the goal's general category of	
a. knowledge, or	"Knowledge" and related examples (pp. 8-10 and 25-31)
b. skill, or	"Skill" and related examples (pp. 10-12 and 32-35)
c. attitude, or	"Attitude" and related examples (pp. 12-14 and 36-44)
d. behavior.	"Behavior" and related examples (pp. 15-17 and 45-49)
4. For each goal, obtaining goal clarification from the relevant goal expert(s)	Examples of such clarification in the "General clarification" and "Relation to citizenship" sections of related examples (pp. 25-49)
5. For each goal, developing implications for measure specifications	As in task 3 above, with special attention to the "Implications for measure specifications" sections of related examples
6. For each goal, guiding the relevant goal expert(s) in developing/selecting measures	Outcomes of the above steps, plus references given within categories (pp. 10, 12, 14, and 17)
7. Considering the practicality and acceptability of the use of the measures	"Practical Concerns" (pp. 17-18) "Prudential Concerns" (p. 19)

Examples of indicators from other areas of social concern are the Gross National Product, used as an indicator of the health of the national economy, and body temperature, used as an indicator of the health of the individual. Using the indicator approach, the conclusion about goal achievement is made on the basis of one -- or at the most, a few -- measures.

A comparison between the two approaches reveals that the indicator approach involves less detailed analysis of the goal and provides less information to be considered in deciding about goal achievement. Thus, the indicator approach may be seen as more efficient. Its major shortcoming in comparison with the behavioral objectives approach is that, in focusing on only one or a few characteristics, it provides relatively little diagnostic information. Thus, the indicator approach is relatively poor for planning remediation, which is the next task after concluding that a goal was not sufficiently achieved.

The particular configuration of relative strengths and weaknesses implies that there are complementary roles for the two approaches. The indicator approach might be used first, as a screening procedure to identify priorities among citizen education goals or to determine the importance of doing further work related to a particular goal. The more thorough, behavioral objective approach would then be used only for the high priority goals, and would provide more detailed results for diagnostic prescriptive purposes.

In this context, the present paper should be seen as relating to the first task, because it takes an indicator approach. In order to

supplement the paper with guidance on the behavioral objectives approach, the reader should refer to one or more of the general works on the topic (e.g., Bloom, Hasting, & Madaus, 1971; Gagne & Briggs, 1974; and Mager, 1962) and to one specifically on citizen education (Tjart & D'Amico, 1979).

Finding Citizen Education Goal Indicators in the Literature

A probable initial response to the task of obtaining goal indicators is to try to find an already developed measure that has a title or content which matches the language used in the goal statement. This response is to be expected, because many believe (1) that finding an already available measure saves the time and effort of developing one, and (2) that a measure presented in the literature is probably better than one developed locally.

These beliefs may be called into question for several reasons. First, the time and effort required to find a measure that matches a citizen education goal may well exceed expectations. Aside from related knowledge of information taught in the social studies part of the curriculum, most areas usually associated with citizen education do not have measures listed in standard references. Further, those that were found in one search were -- with a few exceptions -- only borderline in terms of technical measurement quality (Sanders, 1978). Finally, one aspect of a good measure is its relevance to those who will be using its results and there seems to be a resistance among educators to the use of measures developed elsewhere (e.g., Quinto & McKenna, 1977).

Although these conditions do not imply that a technically adequate and locally acceptable measure will not be found through a search of the literature, they do imply that a development effort will often be needed. This paper is primarily intended to be a guide for that development effort, though it may also be valuable in judging the appropriateness of already developed measures or choosing items from such measures.

The Guide

Beginning with an individual citizen education goal, one can derive specifications for the appropriate measure. As elaborated in the following pages, the first step is to determine the general category to which the goal belongs: knowledge, skill, attitude, or behavior. This categorization indicates what general measurement procedures will probably be most appropriate. Then, within categories, a further clarification of the content implied by the goal is necessary, so that measurement procedures can be more thoroughly specified.

Guidelines for needed goal clarification are presented in the sections of this paper that deal with each of the four general categories. Also, examples of such clarifications and related implications for measure specifications are presented in the Appendix.

General Goal Categories

An initial step in obtaining an appropriate measure for a goal is to determine the general type of goal. A useful set of measurement procedures is determined by the answers to two questions about the goal:

(1) Does the goal refer primarily to capabilities, as in test-like circumstances, or to naturally occurring characteristics, as in "candid camera" circumstances? (2) Does the goal refer primarily to what people say or to what people do?

The four combinations of answers to these two questions are presented in Table 2 as four general goal categories. In parentheses are labels for each category, chosen to refer to the type of psychological characteristics usually associated with the category.

TABLE 2

General Goal Categories

	What People Say	What People Do
Capability	Presenting information when asked (Knowledge)	Performing a task when asked (Skill)
Natural Characteristics	Presenting personal perceptions or evaluations (Attitude)	Normal activity (Behavior)

The primary reason for the use of the above categories is that they lead easily to further distinctive measure procedures. Knowledge is usually measured with questions and answers, with answers scored for correctness. Skills are assessed with performance tests, which either require that a sequence of steps be conducted in a particular order or have a definable product as an outcome. As considered here, attitudes are ordinarily assessed with scales and interviews in which persons report their perceptions or evaluations. Finally, behavior, as discussed in this paper, is associated with observational procedures used by persons other than the person whose behavior is to be noted.

The four general goal and related measurement procedures are each discussed in the following sections of this paper. The sections are designed to inform and guide the reader in the further clarification of the goal so that appropriate measurement procedures may be more thoroughly specified.

Knowledge

If a goal has been categorized as a knowledge goal, the designated goal expert(s) will need to be consulted for clarification along several lines. They should be asked for references to particular textbooks or other materials that present such knowledge. This information will help provide the type of content reference needed for developing the content part of the measurement specifications. Also the experts should be asked to note any key terms (e.g., checks and balances) and/or major distinctions (e.g., among branches, not levels of government) that are salient. For more detailed examples, see the "General Clarification" sections in the Knowledge examples presented in the Appendix.

Another aspect of clarification may have format implications. If one can get clarification of the citizen-related circumstances of the use of the content, then one may match the use to the appropriate question-answer format. If the emphasis in the goal is on circumstances in which the citizen is to recall the knowledge, as needed in making an argument for or against a particular public policy or action, then the most appropriate question-answer format would seem to be one which calls on the person to produce the answer (e.g., fill-in and essay-type questions). On the other hand, if the

envisioned citizen-related use is primarily to judge the veracity of someone else's claims (e.g., evaluating a candidate's assertions or a newspaper's story), then answer-selection formats (e.g., true-false and multiple choice) would seem to be most appropriate. For more elaborate examples of the relations between envisioned citizen-related use and format, study the "Relation to citizenship" and "Implications for measure specifications" sections in the Knowledge examples presented in the Appendix.

In addition to format implications, clarifying the citizen-related use of the goal content provides a context which may be worked into the content of the measure. For example, a question concerning checks and balances might be set in the context of deciding whether to support an increase in executive authority. Additional examples of implications are presented in the Knowledge examples in the Appendix.

Finally, the goal expert(s)' clarification may suggest that the type of information implied by the goal is more opinion than fact. That is, it may seem inappropriate to think of scoring the related answers as correct or incorrect. If this is the case, either one may merely tally answers and report frequencies for all answers, or one may overtly consider the goal to be about an attitude rather than knowledge and use procedures discussed in this paper's section on attitudes. See Knowledge Example 1 in the Appendix for an illustration of this circumstance.

Additional general guidance for developing measures of knowledge is widely available. Two such references are Ahman and Glock (1971, pp. 81-182) and Educational Testing Service (1959). For more detailed coverage, see Thorndike (1971, especially Chapters 3, 4, 5, 7, and 10).

Skills

If a goal is considered to be a skill goal -- i.e., involving performance of a task when asked -- clarification should be obtained from the goal expert(s) concerning the task(s) involved. Particular topics of clarification which will be helpful in developing specifications for measures are descriptions of (1) each of the steps necessary to accomplish the task and their sequence, as appropriate (e.g., Skill Example 1 in the Appendix), (2) any resources that should be available for use in the task (e.g., Skill Example 2 in the Appendix), (3) special characteristics of the setting in which such a task might be carried out (e.g., Skill Example 1 in the Appendix), and/or (4) the outcome or product of the completed task (e.g., Skill Example 2 in the Appendix). More generally, for some skills it will be appropriate to observe the process (see "Implications for Measure Specifications" in Skill Example 1 of the Appendix), while with others the focus is more appropriately placed on the outcome (see Skill Example 2 in the Appendix).

As with knowledge goals, the appropriateness of the measure is increased if the substance of the task and/or the setting for it can be related to the citizen use of the skill. Thus, the goal expert(s) should be asked to clarify when the skill would be used by a person in the citizen role. The reader should study the relationship between the "Relation to Citizenship" and "Implications for Measure Specifications" sections of the Skill Examples in the Appendix, for examples of measurement implications of the citizen use clarifications.

If, after clarifications from the goal expert(s), a primarily verbal measure is implied, then the goal is probably better categorized and treated as a knowledge goal. As presented in the "Implications for Measure Specifications" section of Skill Example 2 in the Appendix, a question that asks for a list of things to do, measures knowing <u>what</u>, rather than <u>how</u> -- i.e., a knowledge, rather than a skill, as those terms are used in this paper. Further, asking for a discussion of why one did something would also be considered a knowledge measure, similar to Knowledge Example 1 in the Appendix.

Specifications for skills measures should always include procedures for informing the person being tested of what is expected, for motivating the performance, and for supplying the needed resources. See the "Implications for Measure Specifications" sections of the Skill examples in the Appendix for illustrations. If these conditions do not hold, it is likely that factors other than the skill will enter into the behavior observed. If the goal expert(s) indicate that the goal refers to whether or how well persons <u>usually do</u> the task, rather than how well they <u>are capable of</u> doing the task, then the goal should be categorized and treated as a behavior goal. Skill Example 1 in the Appendix provides a more concrete discussion of the differences between skill and behavior measures.

Finally, it may facilitate data collection to use aggregate, rather than individual, measures, where possible. When the purpose in using the measure is to make decisions about a citizen education program, rather than about individual persons, there is no need for obtaining an

individual's score. Scores may be obtained for groups of persons, as illustrated in Skills Example 1, in the Appendix. A more general discussion of the opportunities for aggregate measures is presented in a later section of this paper, entitled "Practical Considerations."

Additional guidance for developing skill measures is available. Fitzpatrick and Morrison (1971) provide one extensive coverage of the topic, and the CAPT Newsletter (Clearinghous for Applied Performance Testing) provides a regular updating.

Attitudes

If a goal is categorized as an attitude goal -- referring primarily to what people say about their normal perceptions and/or evaluations[3] -- one should encourage the goal expert(s) to consider whether the persons whose attitudes are to be measured are likely to be sufficiently aware of their attitudes to respond validly when asked directly about them. Most methods for measuring attitudes involve asking directly, though there are indirect methods, which are usually referred to as "projective" measures. Projectives are used when there is reason to believe that the attitudes are only revealed with indirect tasks, such as word association and creative story telling. Projectives are not used generally in education, perhaps because the inferences required are based on relatively elaborate and/or unsupported theory. An occasion for the indirect approach is presented in Attitude Example 1 in the Appendix.

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[3]No distinction is made here among the variety of labels used for such internal states as "attitudes," "beliefs," "drives," "interests," "opinions," and"values."

In addition to inaccessibility of the attitude, another reason that asking directly is often considered inappropriate is the suspicion that the person being quesitoned may not "tell the truth." There are several procedures for minimizing and/or checking this suspicion. First, the introductory instructions may encourage honesty by having respondents omit giving any self-identification, or, where anonymity is not possible, by assuring confidentiality of response. Second, one may add questions that on one could be expected to answer in the desirable way, unless they were not "telling the truth" (e.g., answering "Always" to "I get all the information on the candidates before I vote"). A person who answers in the way designated as not telling the truth on several such questions would not be included for scoring in the other items. Finally, in such circumstances as are described in the following paragraph, giving an answer can involve a choice from among equally desirable -- or equally undesirable -- alternatives, thus eliminating choices based on presenting oneself positively, or negatively, respectively. (see Scott, 1969, pp. 238-245 for further discussion of these procedures.)

Among direct methods of measuring attitudes there are two basic types. If the strength of the attitude is likely to be manifest most clearly in direct comparison with other attitudes, then the method used should reflect that. (see Attitude Example 2 in the Appendix for an illustration.) Most attitudes are measured, however, without comparison to other attitudes.[4] Thus, it is important to determine with the goal expert(s) whether the attitude is seen as being strongly interrelated

with one or more other attitudes. The goal experts' views of the relation of the attitude to citizenship may help clarify this issue.

The clarification concerning citizen relatedness of an attitude should also help in other ways to specify the appropriate phrasing of direct measures of the attitude. It may help to clarify whether the attitude is in present, or ongoing, time, or whether it is about the future. Compare Attitude Examples 2 and 3 with 4 in the Appendix for their different time references. It may also help to determine the attitude focus: sense of obligation, belief, feeling, or behavioral orientation.[5] Compare Attitude Examples 2, 3, 4, and 5 for different attitudinal focuses. Finally, the clarification of citizen relatedness of the attitude can suggest appropriate content for the measure; study all attitude examples in the Appendix for illustrations of content implications.

Additional general guidance in developing the types of measures indicated in this section may be found in Henerson, Morris & Fitz-Gibbon (1978, pp. 84-91) and Scott (1969, pp. 218-245).

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[4]Direct measurement of attitudes does, however, often involve use of both positive and negative phrasings of the attitude being measured. The purpose of this procedure is to deal with the unthinking checker of choices, who will receive a midpoint or neutral score when half the item phrasings are positive and half are negative. (see Scott, 1969, pp. 239-241 for a further discussion.)

[5]If actual behavior is the concern, the goal should be categorized and treated as described in the following section on "Behavior." There are exceptions to this rule, as also discussed in the Behavior section and exemplified by Attitude Example 2 and 5.

Behaviors

If a goal is categorized as a behavior -- referring primarily to what people do under natural circumstances, as the term is used here -- then the measurement procedure will involve some type of observation. Direct observation of the behavior is the most straightforward of the procedures. It involves observation of particular aspects of behavior which have been clearly specified as occurring under explicitly defined circumstances. Thus, clarification should be obtained from the goal expert(s) concerning the specific aspects of behavior and their circumstances of occurrence. Particular points of such clarification as discussed below are the bases for deciding the appropriate measure procedure and are illustrated in the "General clarification" and "Relation to citizenship" sections of the behavior examples in the Appendix.

Although direct observation is the most trustworthy procedure, it is appropriate only when the occasions of the behavior can be anticipated and localized and when the observer can be relatively unobtrusive. Compare Behavior Example 1 with other behavior examples in the Appendix for the conditions described here.

When direct observation is not appropriate, then one may be able to draw on the observations made by others who have some special knowledge of the particular aspects of behavior under the specified circumstances. These observations may be obtained directly from the others through structured interviews or questionnaires (e.g., Behavior Example 2) or they may be found among official records (e.g., Behavior Example 3).

Whatever type of observation is used, it is of course important that precautions be taken to avoid biased observations. In addition to being aware of possible biases in the choice of observers, one should try to arrange for more than one observer; averages, or other summaries, of observations from the several observers are generally considered to be more reliable than any one observer's observations.

Another important issue is the need to focus on each individual among those whose behavior is being measured. Because the purpose assumed in this paper in using the measure is to make decisions about a citizen education program, rather than about individuals involved in the program, there is usually no need to obtain individual scores. Although an exception is presented in Behavior Example 3, the other behavior examples in the Appendix are amenable to being carried out either with a representative sampling of the persons in the program or by using measurement procedures which do not allow for individual identifications. Behavior Examples 4 and 5 illustrate this latter type of procedure. The measure in Behavior Example 4 depends upon the participants' observations of the settings in which they participate, commonly referred to as "climate" scales. The measure in Behavior Example 5 is commonly referred to as a "trace" measure, which does not involve observing the behavior itself, but only the evidence that the behavior has occurred.

There are circumstances in which none of the above procedures is both sufficiently complete and practical. Under these circumstances, the person's own self-report of the behaviors might be the best possible way to obtain the appropriate measurements. Because the self-report

procedure has been discussed in this paper under the previous "Attitude" section, the reader should refer to that section and to Attitude Examples 2 and 5 for additional information.

Additional general guidance for developing direct observational procedures may be found in Weick (1969, pp. 401-435). Guidelines for developing reports by others may be found in Anastasi (1968, pp. 419-421). General commentary concerning trace and other similar measures may be found in Webb, Campbell, Schwartz, and Sechrest (1966).

Important Additional Concerns

There are concerns beyond individual goal clarification and related measure specifications that are important in the overall effort of obtaining measures of citizen education goals. These concerns and related suggestions have been labeled as either practical or prudential, and are presented in the following sections.

Practical Concerns

Most standard references on testing, measurement, observational procedures, and evaluation will indicate that a measure will not be dependable if it consists of only one or a few items or observations. These references generally contain rules of thumb for how many items are needed, contingent upon the type of measure and nature of the content. Of course, the more that are needed for a dependable measure, the more time and effort are required to develop, put into operation, and score the measure. If large amounts of time and effort are required, this can present a problem, for there are generally not just one, but several, goals to be measured.

If the amount of time and effort needed is of concern, the person responbible for guiding the measure selection and/or development may be able to recommend a sampling procedure. The sampling involves giving only some of the items (or making only some of the observations) for any one individual, but covering the total set of items (or observations) across all individuals. The procedure, referred to as "item sampling" or "matrix sampling," was developed in the realm of knowledge measures, but may be more generally applied in the other categories of measures discussed in this paper. Hasek and Sirotnik (1967) provide basic guidelines for use of this procedure.

The use of the sampling procedure is defensible only when the purpose of the measurements is to make decisions about a citizen education program, not about individuals. These decisions may be made on the basis of aggregate data and there is no need to have individual scores. Although there is some discussion of aggregate measures in the sections on "Skills" and "Behaviors," the sampling procedures mentioned here can also be used for measures of knowledge and attitudes.

A related consideration concerning the use of aggregate results is that it is not necessary for the measures to be as reliable as they would need to be for decisions about individuals. This circumstance is fortunate, because measures in the citizen education area in general may be expected to have reliabilities that are too low to serve as bases for decisions about individuals (Sanders, 1978).

Prudential Concerns

There should be a concern for the well-being of the people being measured and those responsible for their education. Although in program assessment there is no need to report individual scores, there remains the possibility that an individual's answers may be identifiable as ones he/she gave. Insofar as the particular measure may reveal information which may be used in a way that is harmful to the person, there is cause to consider procedures that avoid that possibility. Foremost among these procedures is allowing the questions to be asked or observations to be made without identifying the person. Other precautions also should be taken to prevent others from seeing the answers of, or recorded observations on, the individual.

Reports of aggregated information may also result in harm, insofar as groups -- e.g., teachers in a given school -- may be punished for the particular results of the measurement -- e.g., poor performance by students in the school. Thus, identification at the aggregate level should, if possible, be avoided.

Finally, a major prudential concern is the community acceptance of the measurement effort related to the citizen education goals. Such measures may well include items or observations with which some members of the community will take issue. The person responsible for the measurement effort should seek authorization of the content and procedures used, from a recognized legitimate office or body.

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APPENDIX

EXAMPLES OF GOAL CLARIFICATIONS

AND RELATED MEASURE IMPLICATIONS

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Introduction

This appendix contains examples of citizen education goals, clarification of those goals, and related implications for measure specifications. The information presented in the examples was selected and/or contrived to illustrate issues raised in the text of the "Guide" section of this paper.

However, there was also an attempt to develop realistic citizen education goal-related information. The goals were selected from listings by others; specifically, sources included lists of state goals (Delaware, 1975; New Jersey, 1972, pp. 36-37; and Pennsylvania, 1978), and goals developed in the National Assessment of Educational Progress (Fair, 1975, p. 101), the International Evaluation of Educational Achievement (Torney, 1978, pp. 3-4) and the Research for Better Schools Citizen Education project (Hill, 1978, pp. 80-82). The selections of the particular goals from those sources were intended to indicate the broad range of content occurring normally in the area of citizen education. The goal clarification, presented in the "General clarification" and "Relation to citizenship" sections of each example, was developed by the author as plausibly elaborating on the goal, as well as serving the purpose of illustrating issues raised in the text of the "Guide" section of this paper.

In the anticipated use of the Guide, the sources of goal-related information would, of course, be different from that described above.

The goal would be one developed to indicate a particular aspect of citizenship valued by the goal developers. The goal clarification would result from an interchange between the designated goal expert(s) and the person responsible for obtaining measures, based on the guidance offered in the "Guide" section of this paper. Then the latter person would be responsible for developing the "implications for measure specifications," which would be taken to the goal expert(s) for further development or selection of the appropriate measure.

Knowledge Example 1

Goal*: Students should recognize basic governmental purposes.

General clarification*: The "basic governmental purposes" are the functions served by any form of governance: providing for social order and the well-being of those who comply with the social order. "Recognizing" these purposes means understanding that without government of some kind, there would be disorder and conflict. The goal refers not only to national, state, and local government, but also to rules and authorities in large gathering places such as schools and businesses.

Relation to citizenship*: As citizens, people should respect the authority of government over more individual preferences and practicalities. This goal refers to a knowledge basis for that respect. That is, when issues of government respect versus individual convenience arise, the purpose of government should be remembered, thereby providing support for respect for government.

Implications for measure specifications: The question should depict situations in which some governmental regulation poses an inconvenience to an individual. The question would then call for a production-type answer giving a general rationale for obeying the governmental regulation. Choice of regulations should include those that are very local (e.g., a school regulation) and those more general

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*See the introduction to this appendix for a description of the sources of the goal-related information presented here.

(e.g., a state traffic law). Answers should include some description of social order, to be scored as correct.

Another type of measure is required to relate more directly to respect for government, which is an attitude rather than knowledge. The reader should see the section on attitudes for a discussion of appropriate measure specifications.

Knowledge Example 2

Goal*: Students should be aware of international organizations and organizations functioning transnationally.

General clarification*: The organizations are the ones that a person is most likely to find in the news concerning political, economic, health, and social justice issues. Being "aware" refers to associating the names of the organizations to their purposes, in general terms.

Relation to citizenship*: As a citizen, a person should be able to identify a relevant organization involved with a certain issue, in order to facilitate finding additional information about the issue.

Implications for measure specifications: The question should pose an international or transnational issue, chosen from those most likely to be in the news. The question would then include a request for the name of an organization that would be involved across national boundaries in the issue. In order to make the citizen-related use of the knowledge explicit, the question should also indicate that the organization's name could then be used to obtain further information about the issue.

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Knowledge Example 3

Goal*: Students should know the history of the nation as necessary for responsible citizenship.

General clarification*: The historical events that are related to this goal are found in the U.S. history texts used in the schools which have this goal. The focus should be on those events which clearly present the issues involved in developing the government of the U. S., e.g., the development of the U. S. Constitution, selected Supreme Court cases, reaction to secessionist movements, and the government's relation to the economy. Such information as names and dates of Presidents, military conflicts, and technological innovations is not included per se.

Relation to citizenship*: As citizens, people should inform their representatives about and/or vote on the basis of their evaluations of particular governmental policies. They should be able to connect present policy proposals with events of the past, in order to use the lessons of the past to evaluate the present policy proposals.

Implications for measure specifications: The questions should require association of governmental policies that are currently at issue in the news, with a past event in which the issue was previously raised. The question should state a current issue and ask for

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production/recall of a similar past event that could provide helpful knowledge in resolving the current issue. The particular current issues used should be chosen for their clear relatedness to at least one of the salient events presented in the texts as discussed under "General clarification" above.

An introduction to the question should indicate the citizen use of the knowledge. That is, it should point out that the issue is one about which people as citizens take a stand.

Knowledge Example 4

Goal*: Students should recognize how different civic policies may affect people's efforts to meet their economic needs.

General clarification*: "Civic policies" are general action orientations taken by any level of government or any of the levels operating in concert. Of particular importance are policies having to do with employment assistance, business stimulation, environmental regulations, federal reserve, civil rights, and product and service regulations. The "economic needs" referred to are those of individuals, including especially the availability of various types of jobs, the purchase of products and services, the support of dependents, and the saving or investment of money.

Relation to citizenship*: As citizens, persons should be able to evaluate policy choices intelligently, in order to vote and otherwise responsibly inform their representatives. Thus, they should realize the implications of particular policies for how they and others in the society will meet their economic needs.

Implications for measure specifications: Each question might provide a description of a recent or proposed policy from among those areas presented in the "General clarification" above. The question should then provide a set of possible answers (i.e., multiple choice) that represent desired outcomes from among the types of economic

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needs presented in "General clarification." The test taker would be asked to choose the most likely economic outcome of the policy given. A citizen-related context may be created if the question indicates that the outcomes are ones claimed by different political candidates, and in order to determine which candidate to support, the citizen must evaluate the claims for their relative correctness.

Skill Example 1

Goal*: Students should be able to apply democratic procedures in small groups.

General clarification*: The "democratic procedures" are (1) allowing each person a reasonable opportunity to have her/his position on the issues heard by the others, (2) insuring that individuals are not jeopardized for holding their positions, (3) making a decision on the basis of the majority, and (4) following through on the decision by everyone. "Small groups" refers to committee-like groups of from three to eight persons, brought together especially to work on some problem or to carry out some task.

Relation to citizenship*: As citizens, persons may be involved in political campaign committees, student governments, and social issue groups, in which group decision making will probably occur.

Implications for measure specifications: A small group setting, as defined in "General clarification" above, should be used. The groups should be given various tasks considered to be of the type mentioned in the "Relation to citizenship" section.

Group members should be told the four particular democratic procedures which will be observed, and they should be encouraged to follow those procedures while working on the task. Otherwise, behavioral tendencies beyond possession of the skill itself might

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become manifest. The group probably should be specially formed for the task, rather than being a naturally occurring group, e.g., of friends in a classroom. (Of course, there should be a consistency in the basis for formation across all groups involved.)

The procedures as stated in the "General clarification" section imply that the measure is an aggregate one, i.e., a measure of the group, not the individual group members. Thus, though the actions of individual members are noted, the observations of each member need not be as extensive as it would be for an accurate individual assessment. Another implication of this circumstance is that the task could be a limited one, involving the group for only enough time to observe the four procedures, probably 10 to 30 minutes, with the longer times required for a larger group.

Skill Example 2

Goal*: Students should possess basic skills in obtaining information.

General clarification*: "Basic Skills in obtaining information" includes being able to use the table of contents and index of a book, to use a card catalog and shelving system in a library, and to question persons who know the subject of concern, in order to obtain information. These skills are probably processes of thinking of an appropriate key word or phrase, using alphabetical and numerical order knowledge, noting what is found, and changing to another key word or phrase, if necessary to continue the search. The outcome of use of the skill is, of course, the possession of the information sought.

Relation to citizenship*: As citizens, people are expected to obtain information about political candidates before voting and about social policy issues in order to determine their positions on the issue.

Implications for measure specifications: The presentation of the task to the persons whose skills are being measured should indicate clearly what information is to be sought and what resources are available for the search. (Otherwise, aspects other than the skill itself will be measured.) The information to be sought should be the type commonly related to the citizen role, e.g., a political candidate's views on assistance to the poor.

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Although a process of obtaining information is outlined in the "General clarification" section above, a close observation of it is probably not possible. Also, the test takers' verbal productions of the process, or any other such listing, cannot logically be considered as a demonstration of the possession of the skill, because adequate verbalization may be neither necessary nor sufficient for carrying out the task. A viable alternative is a focus on task completion; the time required to obtain the information could be recorded.

Attitude Example 1

Goal*: Students should appreciate the worth of all people.

General clarification*: This goal refers to a positive, basically trustful feeling toward other people. It includes all people, but the emphasis is on persons different from oneself (e.g., of another race, religion, or nationality) and on those who are usually given lower status in the society (e.g., children, elders, the poor, and the physically or mentally handicapped).

Relation to citizenship*: As citizens in a democracy, people need to share the feeling underlying the belief that people who are different from themselves have viewpoints which deserve to be represented in the society.

Implications for measure specifications: The emphasis on a feeling that underlies belief suggests a basic emotion which may be difficult to assess through response to direct questions or statements. A less direct orientation that seems to be appropriate is a structured word association technique called the Semantic Differential (Henerson, et al., 1978, pp. 89-91). Using this technique, the particular names of the groups mentioned in the "General clarification" section above would be quickly associated by the respondent with a point along each of eight to ten scales. The scales should each be defined by bipolar adjectives, selected to represent various aspects of feelings related to worthiness, as

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presented in the "General clarification" and "Relation to citizenship" sections above (e.g., trustworthy - untrustworthy). The scale points selected by the respondents could be combined to form scores for each group, each scale across groups, and across both scales and groups.

Attitude Example 2

Goal*: Students should be loyal to country, to friends, and to others whose values they share.

General clarification*: Loyalty means defending social institutions and groups of people of which one is a part. The defense may come in the form of speaking in support of, contributing money or time to, and physically fighting for the group or institution. It usually requires some sacrifice of personal interest such as social status or physical security.

Relation to citizenship*: As citizens, people are expected to be loyal to their national, state, and local governments as manifestations of democratic ideals, and to other institutions and groups, such as the school and the family, as they provide education and support for democratic government.

Implications for measure specifications: According to the "General clarification" above, loyalty is a behavioral orientation which usually requires sacrifice of other, more self-interested orientations under conditions in which one's own groups or institutions are under attack. The "Relation to citizenship" section points out the related groups and institutions. Although the content of this goal is clearly behavior, such behavior is too infrequent and too often hidden from others' views to be subject to sufficient observation. Instead, a self-report procedure is used, and the goal

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becomes classified as an attitude, in concert with this paper's use of that term. An appropriate procedure is one based upon an item form used by the Pennsylvania Department of Education in its Educational Quality Assessment of citizenship: A situation, a behavior, and several mitigating circumstances are presented, and the respondents indicate whether they would engage in the behavior under each of the circumstances. For measurement of this attitude the situation would be one in which one of the groups mentioned above is under attack, the behavior would be the manifestation of loyalty, and the mitigating circumstances would be various sacrifices of status or security resulting from the behavior. In an attempt to find respondents who are answering on the basis of social desirability, overwhelming mitigating circumstances could be used on three or four of the items, as the basis for a built-in lie scale.

Attitude Example 3

Goal*: Students should believe that each person's civic behavior is important.

General clarification*: "Civic behavior" means any activity relating primarily to rules and responsibilities in the institutions of a democratic society, including voting, taxpaying, obedience to laws, availability for public office, taking public position on issues, and educating for civic behavior. Many of these behaviors should be seen in all of the institutions of a democratic society, including schools. To "believe" means to express to others the conviction, and "is important" should be taken to imply that the full functioning of the government is dependent upon the civic behavior of every individual.

Relation to citizenship*: As citizens, people who hold this view are more likely to behave according to it and to encourage others to do so. Such participation is necessary if the society is to be democratic.

Implications for measure specifications: Statements indicating belief in the efficacy and other values of the civic behavior indicated in "General clarification" above could form the basis of an appropriate measure. Respondents would be asked to indicate their agreement or disagreement with the statements. To prevent the unthinking respondent from appearing to be totally in support of the

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belief, some statements may be phrased so that agreement would indicate a lack of belief; if half the statements are phrased each way, then this unthinking respondent would be scored as having a midpoint, or neutral position on the topic.

Attitude Example 4

Goal*: Students should recognize the need for individuals and communities to make wise use of resources.

General clarification*: The "resources" of concern are oil and other sources of fuel, trees and other sources of building materials, and arable land as the source of food and much clothing. Exactly what policies constitute "wise use" is the topic of much debate and is, thus, not specified here. However, it is important that young people have a sense of obligation to question reflectively the wisdom of the various uses of these resources as they come to have responsibilities for managing their own, their family's, and their community's use of them.

Relation to citizenship*: As citizens, people are responsible to the public good, which implies actions for the basic well being of future generations. The sense of obligation for a wise use of resources underlies such actions.

Implications for measure specifications: According to the "General clarification" presented above, the goal refers to people's sense of obligation to question resource use when they take on adult responsibilities. A direct measurement approach seems to be the only approach that is appropriate for this cognitively-based, future-oriented attitude. The respondent's agreement or disagreement would be sought to a set of statements which expressed the

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obligation, and lack of obligation, to a questioning orientation concerning use of resources and settings mentioned above.

Attitude Example 5

Goal*: Students should actively work for civic improvement.

General clarification*: "Civic improvement" is anything which betters the conditions of public property or public events or which is involved in dealing positively with social issues. "Work" here means going beyond any paid job that a person has, even if that job itself involves civic improvement; also excluded are activities that the person is forced to do by his or her authorities.

Relation to citizenship*: As citizens, people can be expected to volunteer a part of their time occasionally to improve the society.

Implications for measure specifications: While this goal refers primarily to what people do, and not to what they say, it would be difficult to adequately observe related behavior, which may be assumed to occur in relation to family, club, and/or church, as well as school. Thus, the measurement procedure most economical here is self-report, which is why the goal is considered an attitude goal, as the term attitude is used in this paper. The self-report form would appropriately involve questions concerning involvement in the type of activities suggested in the "General clarification" and "Relation to citizenship" section above. Responses might be open-ended or structured, if appropriate levels of involvement could be prespecified.

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Behavior Example 1

Goal*: Students should guard the safety and health of others.

General clarification*: Students "guard the safety and health of others" by obeying the safety rules made for the school. These are (1) no running in the halls, (2) no riding of bicycles on the school grounds, and (3) wearing proper attire for physical education classes.

Relation to citizenship*: As citizens, people should act in ways that do not endanger others. School safety rules are meant to convey this general behavioral tendency, as well as to provide for the safety of the students in the school.

Implications for measure specifications: Direct observation of obedience to the rules mentioned above is possible, because the behavior is localized, the occasion for its occurrence can be anticipated, and the observation may be done unobtrusively. The "Relation to citizenship" section implies that other safety-related behavior also should be observed; pushing in lunch lines could be considered such a behavior. This behavior is also amenable to direct observation.

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Behavior Example 2

Goal*: Students should be ethical and dependable in work, school, and social situations.

General clarification*: "Ethical" is here defined as being honest. "Dependable" means being on time and doing the activities agreed upon. "Work" refers to jobs, even temporary ones, for which the worker is paid. "School" refers to both classroom and outside classroom settings. "Social situations" refers to interactions with people not included in the two other situations.

Relation to citizeship*: As citizens, people should meet their obligations to others with whom they work or have other ongoing interdependent relationships, in addition to family obligations.

Implications for measure specifications: Direct observation of the behaviors presented here does not seem possible; they are not sufficiently localized, nor are they open to observation by an outsider. Instead, a questionnaire on the above topics could be given to teachers, employers of students, and students themselves, all of whom observe the natural occurrence of these behaviors. Although it is possible to use this procedure to obtain scores for individuals, it would be prudent to avoid identifying individuals and instead to produce aggregate summaries across individuals. It would also be practical to obtain such reports from as small a sample of respondents as is technically feasible.

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Behavior Example 3

Goal*: Students should comply with public laws.

General clarification*: "Public laws" are those that apply to all members of the public; "public law" is not interpreted as including school regulations that have no counterparts in laws which apply to all members of the public. Of particular concern in disobeying public laws are assaults, property thefts, property defacing and destruction, possession of illegal substances, and embezzlement.

Relation to citizenship*: As citizens, people should obey the laws.

Implications for measure specifications: The direct observation of illegal behaviors is not an appropriate procedure because such behavior is not localized, not readily anticipated, and often does not occur if there is any observer present. The relevant information could be obtained through use of official records of convictions or admissions of guilt for commission of these crimes by the students in the school. Although a simple tally of such crimes might be sufficient for setting priorities, it may be helpful if any related program is planned, to have also a record of particular individuals involved. However, see the "Prudential Concerns" section of the preceding paper for precautions to be taken in having such information in identifiable form.

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Behavior Example 4

Goal*: Students should show respect and caring for others.

General clarification*: "Respect" refers to treating persons with esteem, thereby making them feel that they are important as individuals. "Caring" means doing considerate things for people in times of need; caring does not here refer to romantic affection or friendship. "Others" is used here to mean people in general, with special emphasis on people who are in the school: other students, teachers, clerical staff, lunchroom staff, custodians, administrators, and visitors.

Relation to citizenship*: As citizens, people should support the physical and emotional well-being of one another. Giving respect and caring are major factors leading to physical and emotional well-being.

Implications for measure specifications: The behaviors indicated here may occur at any time and any place, and, thus, are not good candidates for direct observation. In fact, as indicated in the definition of "respect" given above, it is the impact of the behavior, i.e., the perceptions of the others, that should be the focus of the measurement. That is, within the suggested boundaries of the others mentioned above, those "others" should be asked whether they receive respect and caring from the students. As part of the development of items for the measure, specific signs of respect and of caring should be sought from members of these groups of others in the school.

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Behavior Example 5

Goal*: Students should recognize the value of protecting the environment.

General clarification*: Underlying this goal is a concern with litter, wastefulness, and damage done to property and the biological environment by school children and young adults.

Relation to citizenship*: As citizens, people should behave in ways which conserve the physical, biological, and aesthetic resources available for public use.

Implications for measure specifications: The focus of measurement here is not to capture the behavior itself, but instead to observe the aftermath or traces of the behavior: the damage done, the usables that are discarded, and the trash. In the school, these traces may be linked, if reasonable precautions are taken, to the behavior of the students in the school. However, traces may be very difficult to attribute to students when the traces are outside the school. In order to measure related behavior of students outside the school, the most appropriate orientation probably would be to depend upon what students say they do. The concerns for obtaining people's reports about themselves is discussed in the "Attitudes" section of this paper; an example is given as Attitude Example 5 in this appendix.

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